



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
-----------------	-------------	----------------------	---------------------

09/319,678 08/16/99 ESCHENMOSE

A

514485-3729

HM12/0823

WILLIAM F LAWRENCE  
FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE  
NEW YORK NY 10151

EXAMINER

RICIGLIANO, J

ART UNIT

1627

PAPER NUMBER

DATE MAILED:

08/23/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
09/319,678

Applicant(s)  
Eschenmoser et al

Examiner  
Joseph W. Ricigliano

Group Art Unit  
1627



- ☐ Responsive to communication(s) filed on \_\_\_\_\_
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 1 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

- ☒ Claim(s) 1-28 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☒ Claims 1-28 are subject to restriction or election requirement.

## Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- ☒ Notice of References Cited, PTO-892
- ☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 5
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 1627

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-21, drawn to a product which is a nanostructure.

Group II, claim(s) 22, drawn to a library of nanosystems formed from a plurality of nanostructures.

Group III, claim(s) 23-24, drawn to a method of making a nanostructure as set forth in group I.

Group IV, claim(s) 23-24, drawn to a method of making a library of nanostructure as set forth in group II.

Group V, claim(s) 25-26, drawn to a process of "changing" nanosystems.

Group VI, claim(s) 27, drawn to a method of using nanosystems.

Group VII, claim(s) 28, drawn to a method of using libraries of nanosystems to identify catalysts.

2. The inventions listed as Groups I-VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The technical feature of supramolecular nanosystems

Art Unit: 1627

meeting the limitations of the claims are known in the art (See for example US 5,316,906; US 5,328,985 and WO 96/13522). Therefore, the feature does not constitute a special technical feature.

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

a.) If applicant elects the invention of groups I or III, applicant is required to elect a specific nanosystem by setting forth the specific oligomers and functional units forming the nanosystem. In order to avoid confusion that may be caused by nomenclature and to proceed with more compact prosecution applicant is asked to set forth their election by structure. Applicants are requested to fully define the structure by setting forth its molecular structure and not by setting forth subgeneric groupings such as “pentapyranosyl” or “chromophore” but rather the actual structure.

The following claim(s) are generic: Claim 1 is generic to group I and claim 23 is generic to group III

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Species within the group are known as established by the references above and hence they are not linked by a special technical feature.

b.) If applicant elects the invention of groups II or IV, applicant is required to elect a specific library nanosystems by setting forth the specific oligomers and functional units forming

Art Unit: 1627

the members of the library of nanosystems. In order to avoid confusion that may be caused by nomenclature and to proceed with more compact prosecution applicant is asked to set forth their election by structure. Applicants are requested to fully define the structure by setting forth the molecular structures and not by setting forth subgeneric groupings such as “pentapyranosyl” or “chromaphore” but rather the actual structure.

The following claim(s) are generic: Claim 22 is generic to group II and claim 23 is generic to group IV.

c.) If applicant elects the invention of group V, applicant is required to elect a specific nanosystems by setting forth the specific oligomers and functional units forming the nanosystem and the equilibrium condition to be changed for example from those in claim 26. In order to avoid confusion that may be caused by nomenclature and to proceed with more compact prosecution applicant is asked to set forth their election by structure. Applicants are requested to fully define the structure by setting forth the molecular structures and not by setting forth subgeneric groupings.

The following claim(s) are generic: Claim 25 is generic to group V.

d.) If applicant elects the invention of group VI applicant is required to elect a specific nanosystem by setting forth the specific oligomers and functional units forming the nanosystem and the specific use intended. Applicant should also specify a specifically the electronic component, catalyst, microprosthesis in detail (for example, if applicants elect the use as a catalyst, then a process such as homogeneous catalysts for polyethylene formation under specified

Art Unit: 1627

should be elected; if a electronic component is elected the specific component, e.g., a diode should be set forth etc.) In order to avoid confusion that may be caused by nomenclature and to proceed with more compact prosecution applicant is asked to set forth their election by structure.

The following claim(s) are generic: Claim 27 is generic to group VI.

e.) If applicant elects the invention of group VII, applicant is required to elect a specific library nanosystems by setting forth the specific oligomers and functional units forming the members of the library of nanosystems including the metal(s). Applicant should clearly elect a process which will be screened with the catalyst. In order to avoid confusion that may be caused by nomenclature and to proceed with more compact prosecution applicant is asked to set forth their election by structure.

The following claim(s) are generic: Claim 28 is generic to group VII.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Species within the group are known as established by the references above and hence they are not linked by a special technical feature.

4. Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Art Unit: 1627

5. Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

6. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(I).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph W. Ricigliano Ph. D. whose telephone number is (703) 308-9346.

The examiner can be reached on Monday through Thursday from 7:00 A.M. to 5:30 P.M.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 308-0196.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jyothsna Venkat, can be reached at (703) 308-2439.

Joseph W. Ricigliano Ph. D.